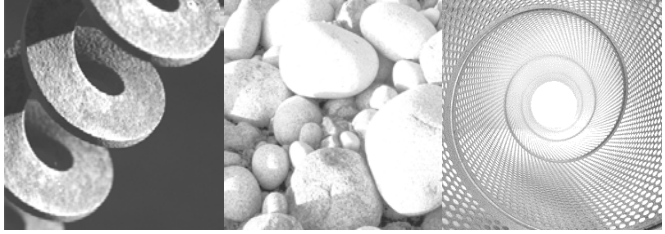

GEI Consultants

Consulting
Engineers and
Scientists

MassDEP RTN 3-23246

Release Abatement Measure Status Report 2

50 Tufts Street, Somerville, Massachusetts

Submitted to:
Massachusetts Department of Environmental Protection
Northeast Regional Office
150 Presidential Way
Woburn, MA 01801

Submitted by:
GEI Consultants, Inc.
400 Unicorn Park Drive
Woburn, MA 01801
781-721-4000

May 2, 2024

Project 045163

Christopher Coner, CHMM
Project Manager

Ileen S. Gladstone, P.E., LSP, LEED AP
Senior Vice President

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MEF:jam
B:\Private\04516\15.0 Report Original\15.148 10 Morton Street RAM SR2 (May 2024)\10 Morton RAM Plan SR2.docx

Executive Summary

GEI Consultants, Inc. prepared this Release Abatement Measure (RAM) Status Report No. 2 for Randal and Adriana Isaac (the Owners) of Somerville, Massachusetts for response actions associated with the renovation of 10 Morton Street in Somerville, Massachusetts (the Property). The Property is located within a Massachusetts Department of Environmental Protection (MassDEP) listed disposal site identified as 50 Tufts Street and assigned Release Tracking Number (RTN) 3-23246 (the Site).

The Property is a residential building within the Site boundary associated with a historic release of chlorinated Volatile Organic Compounds (VOCs) to soil and groundwater at 50 Tufts Street, located approximately 160 feet northwest of the Property across Tufts Street. From approximately 1955 to approximately 2002, 50 Tufts Street was used for storage and distribution of industrial chemicals, laundry supplies, and dry-cleaning supplies. Chemicals stored at and delivered to and from 50 Tufts Street included chlorinated solvents. These chlorinated VOCs - particularly tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA) - have been detected in soil, soil vapor, indoor air, and groundwater at 50 Tufts Street.

In 2009, to address a potential complete vapor intrusion pathway, an Exposure Pathway Mitigation Measure (EPMM) was installed at the Property. In the basement, the EPMM consisted of a new concrete floor and a vapor barrier system both beneath the floor and on the fieldstone foundation walls below the outside grade, together with a venting system beneath the vapor barrier. An Activity and Use Limitation (AUL) was placed on the Property requiring that the integrity of the EPMM be maintained.

The Property is currently undergoing renovation. As part of the renovation, the Owners lowered the basement floor by approximately one foot by demolishing the existing concrete foundation slab and sub-slab piping system and vapor barrier. Construction is being managed so as not to intercept the water table, and dewatering is not necessary.

On June 21, 2023, GEI submitted a RAM Plan to address contemplated changes to activities and uses of the Property as they relate to the previously-installed EPMM. Based on historic (2007 and 2008) and recent (2023) sub-slab soil gas sampling, an updated Unit Risk Factor for PCE (2014) and the "WSC No. 16-435: Vapor Intrusion Guidance," dated October 2016 (2016 VI Guidance), GEI concluded in the RAM Plan that the EPMM was no longer required to maintain a condition of No Significant Risk (NSR) and could be demolished. However, in response to comments subsequently received from MassDEP, a RAM Plan Modification was submitted in November 2023 to provide for a sub-slab venting system and 20 mil vapor barrier to be installed during renovations and for post installation sub-slab soil gas and

indoor air testing to be conducted to evaluate whether an EPMM and an AUL are required to maintain a condition of NSR.

The RAM began in June 2023 and is anticipated be completed in the spring of 2024 when the basement foundation slab sub-slab venting, vapor barrier, and walls are reinstalled and confirmatory sub-slab soil vapor data can be collected.

1. Introduction

GEI Consultants, Inc. prepared this Release Abatement Measure (RAM) Status Report No. 2 on behalf of Randal and Adriana Isaac (the Owners) for response actions associated with the renovation of 10 Morton Street in Somerville, Massachusetts (the Property; Fig. 1). The Property is located within a Massachusetts Department of Environmental Protection (MassDEP) listed disposal site identified as 50 Tufts Street and assigned Release Tracking Number (RTN) 3-23246 (the Site; Fig. 2).

1.1 Purpose

The Property is subject to an Activity and Use Limitation (AUL). The purpose of this RAM Status Report No. 2 is to comply with the requirements of the Massachusetts Contingency Plan (MCP, 310 CMR 40.0440) and the requirement of the AUL that "any proposed changes in activities and uses which may result in higher levels of exposure to oil and/or hazardous material than [existed at the time that the AUL was recorded] be evaluated by an LSP who shall render an Opinion in accordance with 310 CMR 40.1080 et seq. as to whether the proposed changes will present a significant risk of harm to health, safety, public welfare, or the environment."

This report covers work performed between October 20, 2023 and April 17, 2024.

1.2 Submittals

The MassDEP RAM Transmittal Form (BWSC106) is being submitted electronically via eDEP, and a copy is in Appendix A.

1.3 Background

The Property is in a commercial/residential zoning district, and fronts Morton Street to the northeast, and is bounded by residential property to the north, south, and west. According to the Somerville Assessor's Database, the existing residential dwelling was built in 1900. The Property is within the Site boundary associated with a historic release of chlorinated Volatile Organic Compounds (VOCs) to soil and groundwater at 50 Tufts Street, located approximately 160 feet southwest of the Property across Tufts Street. From approximately 1955 to approximately 2002, 50 Tufts Street was used for storage and distribution of industrial chemicals, laundry supplies, and dry-cleaning supplies. Chemicals stored at and delivered to and from 50 Tufts Street included chlorinated solvents. These chlorinated VOCs - particularly tetrachloroethylene (PCE), trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA) - have been detected in soil, soil vapor, indoor air, and groundwater at 50 Tufts Street.

Based on the results of assessments conducted to date, the Site includes the 50 Tufts Street property, together with portions of properties in the neighborhood to the east and west. Based on multiple rounds of groundwater measurements, the general direction of groundwater flow at the Site is to the northeast across Tufts Street towards Knowlton and Franklin Streets.

1.4 Project Description

In 2009, to eliminate or mitigate a potential complete vapor intrusion pathway, an Exposure Pathway Mitigation Measure (EPMM) was installed at the Property. In the basement, the EPMM consisted of a new concrete floor and a vapor barrier system both beneath the floor and on the fieldstone foundation walls below the outside grade, together with a venting system beneath the vapor barrier.

Site redevelopment includes renovation of the existing multi-family house. As part of the renovation, the Owners intend to lower the basement floor by approximately one foot by demolishing the existing concrete foundation slab and sub-slab piping system and vapor barrier. Construction is being carried out so as not to intercept the water table, and dewatering is not necessary.

Excess soil generated during construction will be managed by the Owners and their contractor and is outside of the scope of this RAM. Chlorinated VOCs have not been detected above laboratory reporting limits in soil samples collected during the installation of a nearby well and a soil sample collected from beneath the slab, as described in the June 2023 RAM Plan; therefore, soil on the Property is not remediation waste associated with the Site (RTN 3-23246).

1.5 Contact Information (310 CMR 40.0444[1][a])

Responsibility for the RAM	**Licensed Site Professional (LSP) for the RAM**
Mr. Randal Isaac	Ileen Gladstone, P.G., LSP, LEED AP
Ms. Adriana Isaac	GEI Consultants, Inc.
88 Cross Street	400 Unicorn Park Drive
Somerville, MA 02145	Woburn, MA 01801
781-960-7738	781.424.9924
	LSP License No. 9719

2. RAM Status Report No. 2

2.1 Status of Response Operations (310 CMR 40.0445[2][a]

During this reporting period underpinning activities were conducted along the basement foundation walls.

2.2 New Site Information (310 CMR 40.0445[2][b])

GEI observed the installation of the sub-slab venting system and 20 mil vapor barrier (Appendix B). On February 22, 2024, GEI observed A-Zoulias Environmental Enterprises (A-Zoulias) of Hudson, New Hampshire install the sub-slab venting system and vapor barrier. A-Zoulias returned the next day to conduct a smoke test of the newly installed vapor barrier. Where smoke penetrated the vapor barrier, A-Zoulias made repairs using double-sided tape and Stegomastic. A photo log is in Appendix C.

2.3 Remediation Waste (310 CMR 40.0445[2][c])

No remediation waste associated with RTN 3-23246 will be managed as part of this RAM.

2.4 Other Information Required by MassDEP (310 CMR 40.0445[2][d])

No additional information has been requested by MassDEP outside of the scope of the RAM Plan and RAM Plan Modification 1.

2.5 LSP Opinion (310 CMR 40.0445[2][e])

The actions described in this status report have been performed in accordance with the RAM Plan.

3. Remediation Waste Management (310 CMR 40.0444[1][d])

No remediation waste associated with RTN 3-23246 will be managed as part of this RAM.

4. Limitations

This RAM Plan was prepared for the use of the Owners and UniFirst. The conclusions presented in this report are based solely on the information contained or referenced in this report. Additional quantitative information regarding the Site that was not available to us may result in a modification of the findings above. The report has been prepared in accordance with generally accepted geohydrological practices. No warranty, express or implied, is made.

5. References

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GEI (2007). Monthly Remedial Monitoring Report No. 7B, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated November 8, 2007.

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GEI (2008). Phase II Comprehensive Site Assessment (CSA), Method 3 Risk Characterization, and Phase III Remedial Action Plan (RAP), 50 Tufts Street, Somerville, MA, RTN 3-23246, dated July 14, 2008.

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GEI (2009). IRA Status Report No. 7 and Remedial Monitoring Report (RMR) No. 10, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated May 11, 2009.

GEI (2009). Phase IV Remedy Implementation Plan (RIP), 50 Tufts Street, Somerville, MA, RTN 3-23246, dated May 11, 2009.

GEI (2009). IRA Completion Report and Remedial Monitoring Report (RMR) No. 11, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated May 11, 2009.

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GEI (2011). Immediate Response Action Completion Report Amendment, RTN 3-23246, 50 Tufts Street Site, Somerville, Massachusetts, dated April 1, 2011.

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GEI (2013). Phase V Status Report No. 4 and Remedial Monitoring Report No. 19, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 2, 2013.

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GEI (2015). Phase V Status Report No. 8 and Remedial Monitoring Report No. 23, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 3, 2015.

GEI (2016). Phase V Status Report No. 9 and Remedial Monitoring Report No. 24, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated February 2, 2016.

GEI (2016). Phase V Status Report No. 10 and Remedial Monitoring Report No. 25, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 3, 2016.

GEI (2017). Phase V Status Report No. 11 and Remedial Monitoring Report No. 26, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated February 2, 2017.

GEI (2017). Phase V Status Report No. 12 and Remedial Monitoring Report No. 27, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 2, 2017.

GEI (2017). Phase V Status Report No. 13 and Remedial Monitoring Report No. 28, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated February 2, 2018.

GEI (2018). Phase V Status Report No. 14 and Remedial Monitoring Report No. 29, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 2, 2018.

GEI (2019). Phase V Status Report No. 15 and Remedial Monitoring Report No. 30, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated February 5, 2019.

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GEI (2020). Phase V Status Report No. 17 and Remedial Monitoring Report No. 32, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated February 3, 2020.

GEI (2020). Phase V Status Report No. 18 and Remedial Monitoring Report No. 33, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 2, 2020.

GEI (2021). Phase V Status Report No. 19 and Remedial Monitoring Report No. 34, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated February 4, 2021.

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GEI (2022). Phase V Status Report No. 22 and Remedial Monitoring Report No. 37, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 2, 2022.

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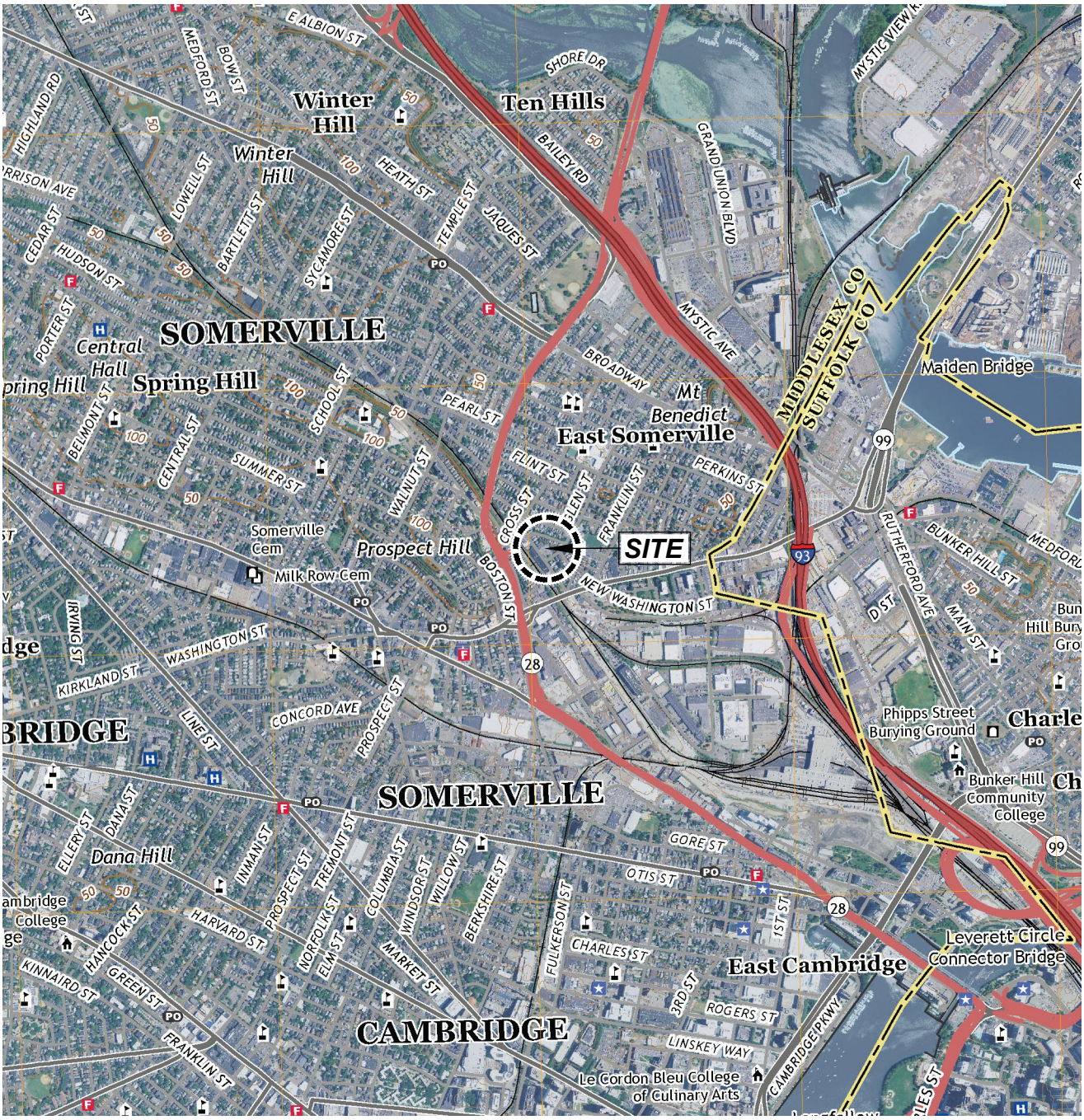
GEI (2023). Release Abatement Measure Plan, 10 Morton Street, Somerville, MA, RTN 3-23246, dated June 21, 2023.

GEI (2023). Phase V Status Report No. 24 and Remedial Monitoring Report No. 39, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated August 3, 2023.

GEI (2023). Release Abatement Measure Plan Modification and RAM Status Report No. 1, 10 Morton Street, Somerville, MA, RTN 3-23246, dated November 1, 2023.

GEI (2024). Phase V Status Report No. 25 and Remedial Monitoring Report No. 40, 50 Tufts Street, Somerville, MA, RTN 3-23246, dated February 2, 2024.

Figures



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Boston North, MA Quadrangle, 2018.
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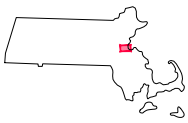

MASSACHUSETTS
QUADRANGLE LOCATION

RAM Status Report No. 2 50 Tufts Street Somerville, Massachusetts	GEI Consultants	SITE LOCATION MAP
UniFirst Corporation Wilmington, Massachusetts	Project 045163	May 2024 Fig. 1

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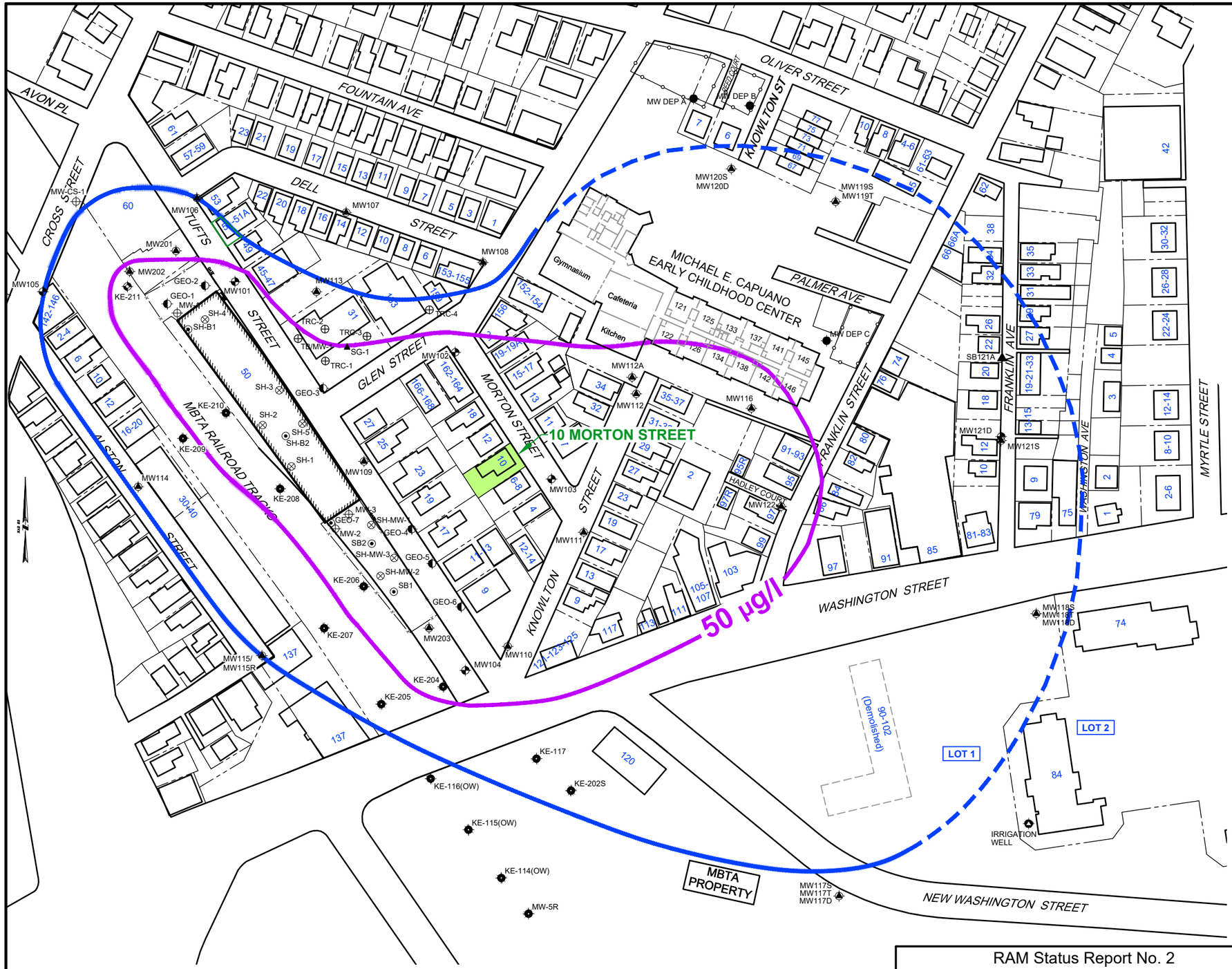


LEGEND:

- MONITORING WELL INSTALLED BY TRC, 2014
- SOIL GAS SAMPLING POINT BY TRC, 2014
- MONITORING WELL WITH SOIL VAPOR SAMPLE PORT INSTALLED BY GEI, JANUARY 2007 - JANUARY 2008
- MONITORING WELL BY KLEINFELDER, SEPTEMBER 2012, MARCH 2014, AND APRIL 2014
- MONITORING WELL INSTALLED BY SANBORN HEAD ASSOCIATES, 2002
- MONITORING WELL INSTALLED BY GEOINSIGHT, JUNE 2004
- SOIL BORING ADVANCED BY GEOINSIGHT, AUGUST 2004
- MONITORING WELL INSTALLED BY GEI, MAY 2006
- DRIVEN POINT MONITORING WELL INSTALLED BY MADEP, MAY 2007
- MONITORING WELL INSTALLED PREVIOUSLY, DATE UNKNOWN
- PREVIOUSLY INSTALLED IRRIGATION WELL
- 84 STREET ADDRESS
- MBTA = MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
- DISPOSAL SITE BOUNDARY (DASHED WHERE INFERRED)
- EXTENT OF PCE CONCENTRATION IN SHALLOW GROUNDWATER GREATER THAN OR EQUAL TO 50 MICROGRAMS PER LITER (µg/l)
- µg/l = MICROGRAMS PER LITER
- PORTION OF SITE SUBJECT TO THE RAM

GENERAL NOTES:

1. HORIZONTAL CONTROL FOR THIS PLAN WAS ESTABLISHED BY GPS AND IS BASED ON THE NORTH AMERICAN DATUM OF 1983.
2. STREET AND PROPERTY LINES BASED ON SOMERVILLE ASSESSORS' MAPS AND ARE BEST FIT RELATIVE TO THE LOCATION OF THE 50 TUFTS ST. BUILDING.
3. MONITORING WELL LOCATIONS WERE ESTABLISHED BASED ON THE GROUND SURVEYS BY BSC GROUP, INC.
4. GEI OBSERVED ABANDONMENT OF SH-MW1 AND SH-1 THROUGH SH-5 IN 2007.

RAM Status Report No. 2
50 Tufts Street
Somerville, Massachusetts

UniFirst Corporation
Wilmington, Massachusetts

GEI Consultants

Project 045163

10 Morton Street
Portion of Disposal Site
Subject to RAM

May 2024 Fig. 2

B:\Private\04516\#Drafting\04516-3\RAM\0451603 RAM 10 Morton St

Appendix A

MassDEP Transmittal Forms

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC 106 12

Release Tracking Number
3 - 23246

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

A. SITE LOCATION:

1. Site Name/Location Aid: 50 TUFTS ST & PROP ACROSS THE ST
2. Street Address: 50 TUFTS ST
3. City/Town: SOMERVILLE 4. Zip Code: 021454129

☑ 5. Check here if the disposal site that is the source of the release is Tier Classified. Check the current Tier Classification Category.

☐ a. Tier I ☐ b. Tier ID ☑ c. Tier II

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial RAM Plan (if previously submitted): 6/21/2023 (mm/dd/yyyy)

☐ 2. Submit an **Initial Release Abatement Measure (RAM) Plan**.

☐ a. Check here if the RAM is being conducted as part of the construction of a permanent structure. If checked, you must specify what type of permanent structure is to be erected in or in the immediate vicinity of the area where the RAM is to be conducted.

b. Specify type of permanent structure: (check all that apply) ☐ i. School ☐ ii. Residential ☐ iii. Commercial

☐ iv. Industrial ☐ Other Specify: _____

☐ 3. Submit a **Modified RAM Plan** for previously submitted RAM Plan.

☑ 4. Submit a **RAM Status Report**.

☐ 5. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP, concurrent with a RAM Status Report.)

a. Type of Report: (check one) ☐ i. Initial Report ☐ ii. Interim Report ☐ iii. Final Report

b. Frequency of Submittal:

☐ i. A Remedial Monitoring Report(s) submitted every six months, concurrent with a RAM Status Report.
☐ ii. A Remedial Monitoring Report(s) submitted annually, concurrent with a RAM Status Report.

c. Number of Remedial Systems and/or Monitoring Programs: _____

A separate BWSC106A, RAM Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

☐ 6. Submit a **RAM Completion Statement**.

☐ 7. Submit a **Revised RAM Completion Statement**.

8. Provide Additional RTNs:

☐ a. Check here if this RAM Submittal covers additional Release Tracking Numbers (RTNs). RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here. This section is intended to allow a RAM to cover more than one unclassified RTN and not show permanent linkage to a Primary Tier Classified RTN.

b. Provide the additional Release Tracking Number(s) covered by this RAM Submittal. ☐ - ☐ ☐ - ☐

☐ 9. Include in the **RAM Plan** or **Modified RAM Plan** a **Plan for the Application of Remedial Additives** near a sensitive receptor, pursuant to 310 CMR 40.0046(3).

(All sections of this transmittal form must be filled out unless otherwise noted above)

DRAFT COPY

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT RAM:

1. Media Impacted and Receptors Affected: (check all that apply)

☐ a. Paved Surface ☐ b. Basement ☐ c. School
☐ d. Public Water Supply ☐ e. Surface Water ☐ f. Zone 2 ☐ g. Private Well ☑ h. Residence ☐ i. Soil
☑ j. Ground Water ☐ k. Sediments ☐ l. Wetland ☐ m. Storm Drain ☑ n. Indoor Air ☐ o. Air
☐ p. Soil Gas ☑ q. Sub-Slab Soil Gas ☐ r. Critical Exposure Pathway ☐ s. NAPL ☐ t. Unknown
☐ u. Others Specify: _____

2. Sources of the Release or TOR: (check all that apply)

☐ a. Transformer ☐ b. Fuel Tank ☑ c. Pipe
☐ d. OHM Delivery ☐ e. AST ☑ f. Drums ☐ g. Tanker Truck ☐ h. Hose ☐ i. Line
☐ j. UST Describe: _____ ☐ k. Vehicle ☐ l. Boat/Vessel
☐ m. Unknown ☐ n. Other: _____

3. Type of Release or TOR: (check all that apply)

☐ a. Dumping ☐ b. Fire ☐ c. AST Removal ☐ d. Overfill
☐ e. Rupture ☐ f. Vehicle Accident ☐ g. Leak ☑ h. Spill ☐ i. Test Failure ☐ j. TOR Only
☐ k. UST Removal Describe: _____
☐ l. Unknown ☐ m. Other: _____

4. Identify Oils and Hazardous Materials Released: (check all that apply)

☐ a. Oils ☑ b. Chlorinated Solvents
☐ c. Heavy Metals ☐ d. Others Specify:

DRAFT COPY

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

☐ 1. Assessment and/or Monitoring Only
☐ 2. Temporary Covers or Caps
☐ 3. Deployment of Absorbent or Containment Materials
☐ 4. Temporary Water Supplies
☐ 5. Structure Venting System/HVAC Modification System
☐ 6. Temporary Evacuation or Relocation of Residents
☐ 7. Product or NAPL Recovery
☐ 8. Fencing and Sign Posting
☐ 9. Groundwater Treatment Systems
☐ 10. Soil Vapor Extraction
☐ 11. Remedial Additives
☐ 12. Air Sparging
☐ 13. Active Exposure Pathway Mitigation System
☑ 14. Passive Exposure Pathway Mitigation System
☐ 15. Monitored Natural Attenuation
☐ 16. In-Situ Chemical Oxidation

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

☐ 17. Excavation of Contaminated Soils

☐ a. Re-use, Recycling or Treatment ☐ i. On Site Estimated volume in cubic yards _____

☐ ii. Off Site Estimated volume in cubic yards _____

iia. Receiving Facility: _____ Town: _____ State: ____

iib. Receiving Facility: _____ Town: _____ State: ____

iii. Describe:

☐ b. Store ☐ i. On Site Estimated volume in cubic yards _____

☐ ii. Off Site Estimated volume in cubic yards _____

iia. Receiving Facility: _____ Town: _____ State: ____

iib. Receiving Facility: _____ Town: _____ State: ____

☐ c. Landfill ☐ i. Cover Estimated volume in cubic yards _____

Receiving Facility: _____ Town: _____ State: ____

☐ ii. Disposal Estimated volume in cubic yards _____

Receiving Facility: _____ Town: _____ State: ____

☐ 18. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount:

b. Receiving Facility: _____ Town: _____ State: ____

c. Receiving Facility: _____ Town: _____ State: ____

☐ 19. Removal of Other Contaminated Media:

a. Specify Type and Volume:

b. Receiving Facility: _____ Town: _____ State: ____

c. Receiving Facility: _____ Town: _____ State: ____

☐ 20. Other Response Actions:

Describe:

☐ 21. Use of Innovative Technologies:

Describe:

DRAFT COPY

E. LSP SIGNATURE AND STAMP :

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that a **Release Abatement Measure Plan** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Release Abatement Measure Status Report** and/or **Remedial Monitoring Report** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply (ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Release Abatement Measure Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal:

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate, or materially incomplete.

DRAFT COPY

1. LSP #: 9719
2. First Name: ILEEN S
3. Last Name: GLADSTONE
4. Telephone: 7817214012
5. Ext.:
6. Email: igladstone@geiconsultants.com
7. Signature:
8. Date: (mm/dd/yyyy)
9. LSP Stamp:

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

F. PERSON UNDERTAKING RAM:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☑ c. change in the person undertaking response actions

2. Name of Organization: RANDAL ISAAC

3. Contact First Name: RANDAL 4. Last Name: ISAAC

5. Street: 10 MORTON STREET 6. Title:

7. City/Town: SOMERVILLE 8. State: MA 9. ZIP Code: 021450000

10. Telephone: 7819607738 11. Ext.: 12. Email:

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING RAM:

☑ Check here to change relationship

☑ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☑ e. Other RP or PRP Specify: ELIGEBLE PERSON

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Undertaking RAM Specify Relationship:

H. REQUIRED ATTACHMENTS AND SUBMITTALS:

DRAFT COPY

☐ 1. Check here if any Remediation Waste, generated as a result of this RAM, will be stored, treated, managed, recycled or reused at the site following submission of the Response Action Completion Statement. You must submit a Phase IV Remedy Implementation Plan along with the appropriate transmittal form (BWSC 108).

☐ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

☐ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of a Release Abatement Measure.

☐ 4. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to bwsc.edep@state.ma.us.

☐ 5. If a RAM Compliance Fee is required for this RAM, check here to certify that a RAM Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.

☑ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

RELEASE ABATEMENT MEASURE (RAM) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

I. CERTIFICATION OF PERSON UNDERTAKING RAM:

1. I,_____ , attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: _____ 3. Title: _____

(Signature)

4. For: _____ 5. Date: _____

(Name of person or entity recorded in Section F) (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. Email: _____

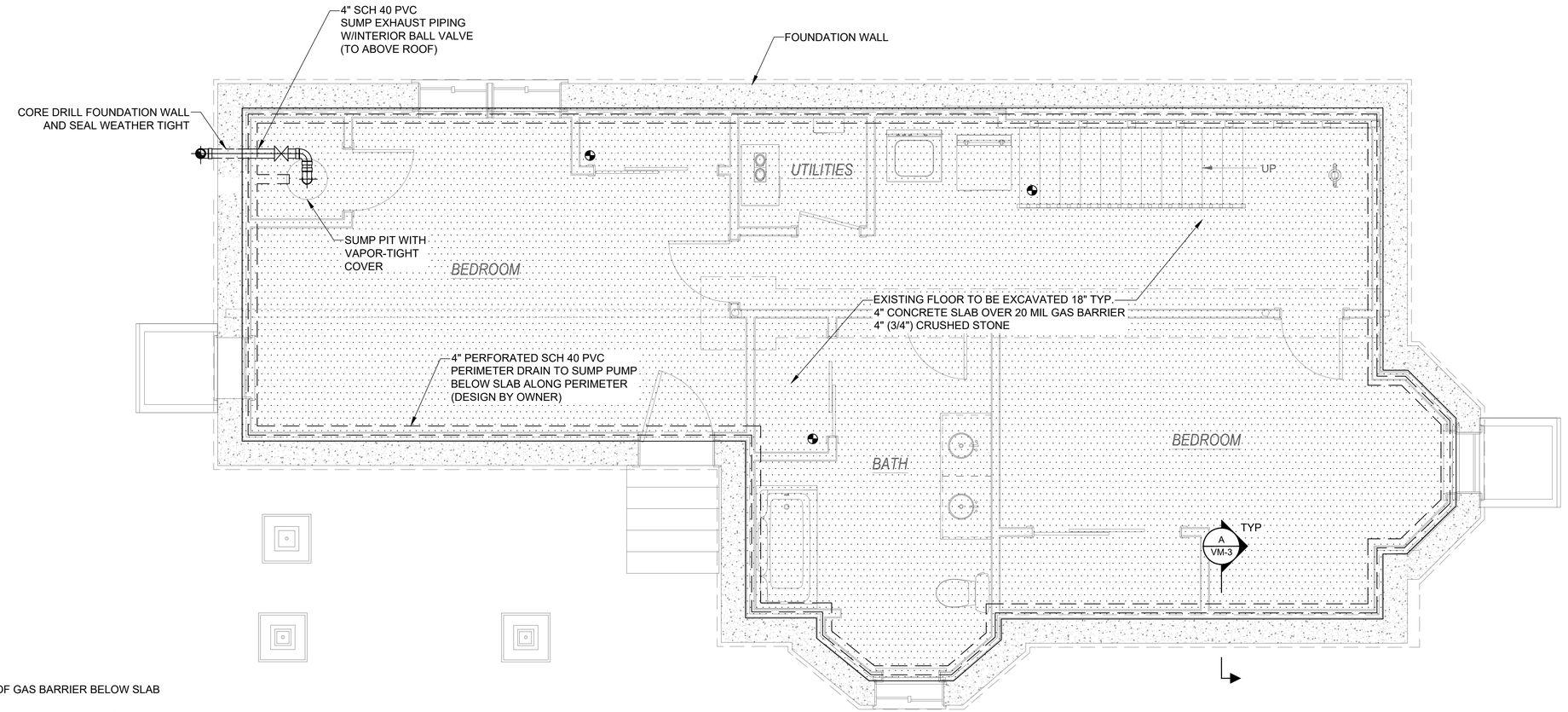
YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE

Date Stamp (DEP USE ONLY)

DRAFT COPY

Appendix B

Sub-Slab Vapor Mitigation System Design



LEGEND

TOTAL AREA (HORIZONTAL)

876 SQ. FT.

EXTENT OF GAS BARRIER BELOW SLAB

4" PERFORATED SCH 40 PVC (SUB-SLAB BY OWNER)

VENT - 4" RISER SOLID SCH 40 PVC PIPE
(PITCH PIPE 1% TOWARD SUMP FOR CONDENSATE DRAINAGE)

SUB-SLAB MONITORING POINT LOCATION
(RESERVE LOCATIONS FOR INSTALL BY GEI)

PROPOSED BASEMENT PLAN-VAPOR MITIGATION SYSTEM

SCALE: 3/8" = 1'-0"

0 2 4
SCALE, FEET

NOTES:

1. THESE PLANS ARE INTENDED FOR THE USE OF A LICENSED CONTRACTOR. HOMEOWNER AND CONTRACTOR ARE TO VERIFY DIMENSIONS, PROPOSED LAYOUT AND BUILDING MATERIALS TO BE USED. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL LOCAL BUILDING CODES AND INSTALL PER CODE REQUIREMENTS.
2. PLAN BASED ON "PROPOSED BASEMENT PLAN" BY CHRISTOPHER B. QUINN, 7/29/2023.
3. FOR ALL FLOOR SLAB PENETRATIONS SEE DETAIL 1/VM-3.

ISSUED FOR BID/PRICING

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

DRAFT

Designed:	L. WELCH
Drawn:	J. MORIN
Checked:	C. CONER
Approved:	I. GLADSTONE
P.E. No:	9719
GEI Project	045163

GEI Consultants
GEI CONSULTANTS, INC.
400 UNICORN PARK DRIVE
WOBURN, MA 01801
(781)721-4000

UNIFIRST CORPORATION

10 MORTON STREET
SOMMERVILLE, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
1	10/27/2023	ISSUED FOR BID/PRICING	LW
0	10/20/2023	INTERNAL DRAFT REVIEW	LW

SHEET NAME
PROPOSED BASEMENT PLAN VAPOR MITIGATION SYSTEM

SHEET NO.
VM-1

MORIN_JCE B:\Private\045163\12.0 Mitigation\12.2 Residences\12.2.5 Vapor Mitigation\10 Morton\00_CAD\Design\Working\045163_1103-10 Morton-Mitigation.dwg - 10/27/2023

PROPOSED REAR ELEVATION-VAPOR MITIGATION SYSTEM

SCALE: 3/8" = 1'-0"

0 2 4
SCALE, FEET

ISSUED FOR BID/PRICING

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

DRAFT

Designed:	L. WELCH
Drawn:	J. MORIN
Checked:	C. CONER
Approved:	I. GLADSTONE
P.E. No:	9719
GEI Project	045163

GEI Consultants
SELECT BLOCK AND CLICK ARROW FOR OFFICE ADDRESS!!

UNIFIRST CORPORATION

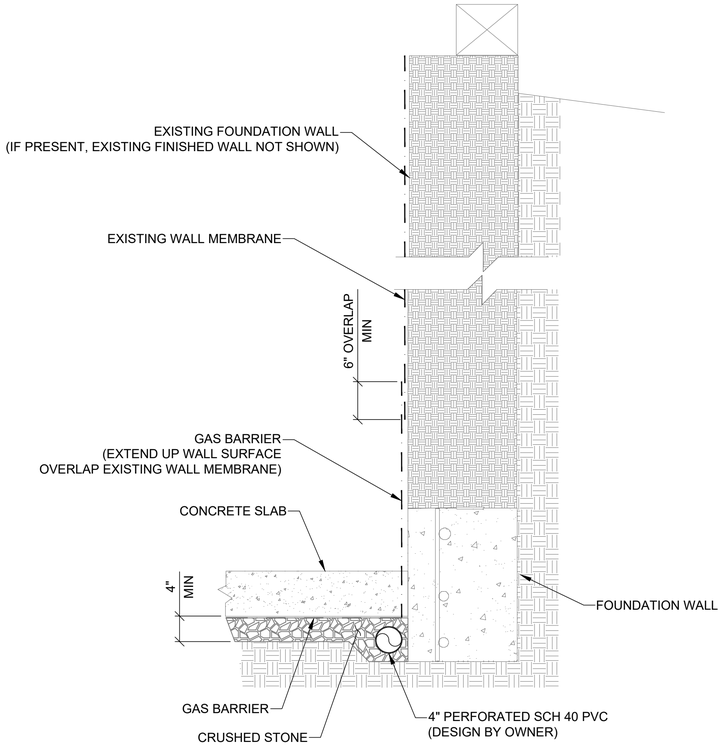
10 MORTON STREET
SOMMERVILLE, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
1	10/27/2023	ISSUED FOR BID/PRICING	LW
0	10/20/2023	INTERNAL DRAFT REVIEW	LW

SHEET NAME
PROPOSED REAR ELEVATION VAPOR MITIGATION SYSTEM

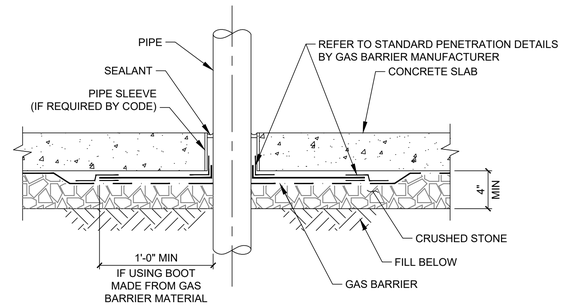
SHEET NO.
VM-2

MCRIN_JOE B:\Private\045163\12.0 Mitigation\12.2 Residences\12.2.5 Vapor Mitigation\10 Morton\00_CAD\Design\Working\045163_1103-10 Morton-Mitigation.dwg - 10/27/2023



NOTE:
WALL DRAINAGE SYSTEM NOT SHOWN FOR CLARITY
SEE STRUCTURAL DRAWINGS FOR EXISTING WALL
DRAINAGE SYSTEM.

A / VM-1 SECTION
TYPICAL GAS BARRIER INSTALLATION
SCALE: 1-1/2" = 1'-0"



1 / VM-1 DETAIL
TYPICAL GAS BARRIER AT PIPE PENETRATION
SCALE: 1-1/2" = 1'-0"

ISSUED FOR BID/PRICING

Attention:
0 1"
If this scale bar does not measure 1" then drawing is not original scale.

DRAFT

Designed:	L. WELCH
Drawn:	J. MORIN
Checked:	C. CONER
Approved:	I. GLADSTONE
P.E. No:	9719
GEI Project	045163

GEI Consultants
SELECT BLOCK AND CLICK ARROW FOR OFFICE ADDRESS!!

UNIFIRST CORPORATION

10 MORTON STREET
SOMMERVILLE, MASSACHUSETTS

NO	DATE	ISSUE/REVISION	APP
1	10/27/2023	ISSUED FOR BID/PRICING	LW
0	10/20/2023	INTERNAL DRAFT REVIEW	LW

SHEET NAME
VAPOR MITIGATION SYSTEM DETAILS

SHEET NO.
VM-3

MORIN_JOE B:\Private\045161\12.0 Mitigation\12.2 Residences\12.2.5 Vapor Mitigation\10 Morton\00_CAD\Design\Working\045163_1103-10 Morton-Mitigation.dwg - 10/27/2023

Appendix C

Photo Log

10 Morton Street
Somerville, Massachusetts
StegoWrap Vapor Barrier Installation and Smoke Testing – Photo Log
February 22 and 23, 2024

2/22/2024 (Install)

Photo 1. Vapor Barrier install (looking away from Morton Street). Sump pit cover for system exhaust in back right corner.

Photo 2. Vapor Barrier install (looking towards Morton Street).

Photo 3. Seams around pipe penetrations.

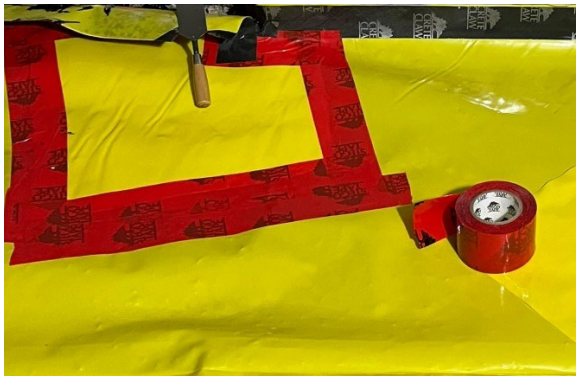


Photo 4. Taping barrier seams.

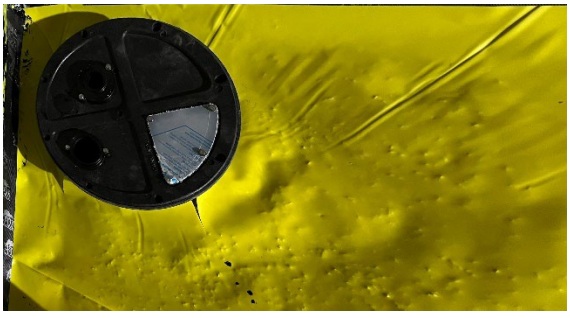


Photo 5. Sump pit cover for system exhaust piping.

Photo 6. Applying mastic to footer seams.

10 Morton Street
Somerville, Massachusetts
StegoWrap Vapor Barrier Installation and Smoke Testing – Photo Log
February 22 and 23, 2024

2/23/2024 (Smoke Test)

Photo 1. Full basement view pre-smoke test (looking away from Morton Street).

Photo 2. Barrier pre-smoke test (looking towards Morton Street).

Photo 3. Barrier pre-smoke test (looking away from Morton Street).

Photo 4. Smoke test machine.

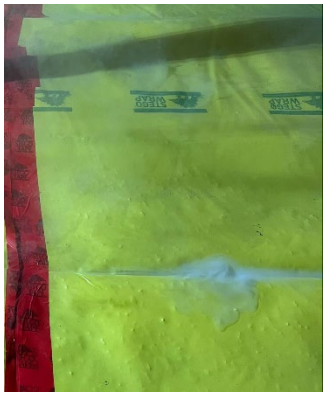


Photo 5. Example smoke escaping through seam tape.

Photo 6. Mastic applied to seal leaks

10 Morton Street
Somerville, Massachusetts
StegoWrap Vapor Barrier Installation and Smoke Testing – Photo Log
February 22 and 23, 2024

Photo 7. Basement view post-smoke test (looking away from Morton Street).

Photo 8. Basement view post-smoke test (looking towards Morton Street).